

**LISTING OF CLAIMS:**

1. Canceled

2. (Currently Amended) A biologically pure culture ~~according to claim 1 which is that of~~ *Saccharomyces cerevisiae* BPSC-15 (NRRL Y-30630).

3. (Original) A biologically pure culture according to claim 2 wherein the organism converts sugars to ethanol at a high rate due to the ability of the organism to maintain a high density of cells in a bio-reactor by virtue of the high settling rate of the flocs.

Claims 4-17 (Canceled; Claims 4-16 are reinstated below as claims 18-30)

18. (New - Corresponding to Original Claim 4) A method for producing ethanol 'beer' solution in a bio-reactor from a fermentation medium comprised of a fermentable carbohydrate, optional recycle stillage, and requisite nutrients, at pH of between 3.0 and 8.0, a temperature between 5 and 45°C, and an effective amount of *Saccharomyces cerevisiae* BPSC-15 of claim 2.

19. (New - Corresponding to Original Claim 5) A method according to claim 18, wherein the fermentation is a batch process under agitation and optional aeration.

20. (New - Corresponding to Original Claim 6) A method according to claim 18, wherein the fermentation is a consecutive batch mode method under agitation and optional aeration comprising decanting completed beer from a settled cell layer (formed upon completion of a fermentation and cessation of agitation and the optional aeration), immediate refilling of the bio-reactor with fresh fermentation media to allow successive batch fermentations, and repeating the foregoing.

21. (New - Corresponding to Original Claim 7) A method according to claim 20, wherein the settled layer of BPSC-15 formed upon cessation of agitation and optional aeration is between 2 and 80% of the reactor liquid volume, and consecutive fermentations are completed in a period of time ranging from 0.5 to 36 hours.

22. (New - Corresponding to Original Claim 8) A method according to claim 18, which is a continuous method comprising a number (2 to 8) of agitated and optionally aerated bio-reactors in series containing organism BPSC-15 wherein outflow of one bio-reactor is inflow of a following bio-reactor, fresh fermentation media is introduced continuously into a first bio-reactor, and completed beer recovered from overflow of a final bio-reactor of the series.

23. (New - Corresponding to Original Claim 9) A method according to claim 22 wherein the average residence time of the fermentation medium (where average residence time is defined as total

fermentation broth volume divided by the volume of feed per hour) in the series of bio-reactors in between 1 and 36 hours.

24. (New - Corresponding to Original Claim 10) A method according to claim 18 which is a continuous method comprising introducing a suitable fermentation medium into a tower reactor (optionally agitated and/or aerated) in which the organism BPSC-15 has formed an active layer of 10 to 90% of reactor volume, and completed beer is withdrawn from the reactor.

25. (New - Corresponding to Original Claim 11) A method according to claim 18 wherein the average residence time of fermentation medium in a tower reactor is between 1 and 36 hours.

26. (New - Corresponding to Original Claim 12) A method according to claim 18 where the fermentation medium comprises recycled stillage at 5 to 80% volume, such method reducing the net effluent from the ethanol production process.

27. (New - Corresponding to Original Claim 13) A method according to claim 18 where the fermentation medium comprises black strap cane or beet molasses without other nutrients and recycled stillage at 0 to 40% by volume.

28. (New - Corresponding to Original Claim 14) A method according to claim 18 where the pH in the bio-reactor(s) is maintained at 3.5 to 4.0 via addition of ammonia or other suitable base with a beneficial result of limiting or eliminating problems with bacterial contamination.

29. (New - Corresponding to Original Claim 15) A method according to claim 18 where a final fermented product is a potable beer, wine, or is distilled to other drinkable spirits.

30. (New - Corresponding to Original Claim 16) A method according to claim 18 where the bio-reactor incorporates ethanol separation simultaneously with fermentation with a beneficial result of reducing solution osmolality contributed by the ethanol.